ABSTRACT

Systems and methods for ranking Web pages based on hyperlink information in a manner that is resistant to nepotistic links are provided. In one embodiment, a Web search service is provided for returning quality query results. The vulnerability of existing ranking algorithms, such as PageRank, to Web pages that are artificially generated for the sole purpose of inflating the score of target page(s) is addressed. Intuitively, it is recognized that it is less likely to reach a particular page on a Web server having many pages via a random jump than it is to reach a particular page on a Web server having few pages, which implies that the influence of such a page upon another page by linking to, or endorsing, the other page is diminished. Thus, in various non-limiting embodiments, each Web server, not each Web page, is assigned a guaranteed minimum score. This minimum score assigned to a server can then be divided among all the pages on that Web server.